Alternative Energy Guidelines

The primary objective of these guidelines is to preserve and maintain the integrity of properties within the Historic Districts of Lexington, while allowing alternative energy installations. The basic goals are to 1) limit the visual impact of any alternative energy installation and 2) avoid any permanent alteration to the historic fabric of the property.

Placement: Minimal Visual Impact

Minimize any alternative energy installation's visibility from public view* by avoiding any setting on or in a publicly visible landscape, wall or roof. No alternative energy installation should detract from the historic character of the site or destroy historic landscape materials.

- Placement in order of preference is;
    1) Freestanding ground arrays. The applicants's first choice should be located on the property so that it is not visible from any public view.
    2) Detached outbuildings. Solar panels may be placed on detached buildings such as sheds if the ground array is not appropriate.
    3) Rear placements. Alternative energy sources may be placed on the rear side of preferably non-historic buildings not visible from any public view.
    4) Secondary roofs, or auxiliary roofs such as attached garages or porches are considered.
    5) Primary roof. As a last resort, primary roof installation will be considered. Care should be taken to minimize its impact on the visual integrity of the structure, and consideration should be given to all the basic elements of the building design, including roof type, window alignment, size, etc. Installation below or behind parapet walls and dormers are preferred to minimize visibility.

- Avoid disjointed and/or multi-roof solutions. Solar panels must be located on one roof plane (not scattered among several roofs) and arranged in a pattern that matches the general shape and configuration of the roof upon which they are mounted. Piecemeal or stepped layouts are not acceptable
- No installation should alter or result in the permanent loss of the character-defining features of an historic resource, such as altering existing rooflines or dormers.
- Egg-beater type (or vertical axis) wind turbines should be placed so that they are hidden from public view. This must include consideration of both placement and height.
- Tall propeller-type wind turbines are not appropriate for an historic setting.
- Mechanical equipment associated with any alternative energy system must be unobtrusive. Barrier plantings may be required.

*for the purposes of this document, 'public view' is defined as visible from any public street, pathway or place.

Materials and Installation: Blending and Reversibility

Alternative energy installations should blend into the existing building and historic setting, and must be considered reversible.

- Installations must minimize any damage to existing historic fabric, including consideration of weight load and wind load. Weight load refers to the increased weight burden on the roof at the mount sites for solar panels. Wind load is the uplifting from wind on the solar panels, ripping the panels off. Both load changes on a roof can cause direct damage.
- Solar modules must have no visible circuitry (silver or gold grid lines), with a strong preference at this time for Thin-Film Solar Cells (TFSC) or other panel types with a uniform dark color surface.
- The color of the panels must be as near a match as possible to the existing roof, if the roof is near new and to remain. Solid black or dark gray are preferred. Note that as both the panels and roof materials age at about the same rate, it is best practice to replace the roof at the same time as the solar panel installation.
- Alternative energy installations on historic properties must be reversible. Avoid solutions that require or result in the removal, damage or permanent alteration of the historic fabric.
- Building-integrated photovoltaics (such as solar roof shingles, but also facades, windows or walls) will be considered for minimal visual impact on a new (not historic) property.
- Solar installations require a low profile, either flush with or mounted no higher than a few inches above the existing roof and never visible above the roofline of the primary facade. Required mounting must be in the exact plane of the existing visible roof. On a visible 45° roof pitch the panels must be set at the same 45° pitch.
- Exception to the above low profile/matching plane can be considered for flat roofs or rear settings where the angled solar panels can be set so as to be hidden from public view.
- At all times the basic elements of design such as balance, proportion, color, rhythm and scale will be considered in evaluating an alternative energy installation.

Renovations/Upgrades: Replace like with exact like in terms of placement and materials or the HDC will consider it a change and require a new Certificate of Appropriateness.